

Title (en)

Synchronized control system of a line of machines, particularly presses

Title (de)

Vorrichtung zur synchronisierten Steuerung einer Reihe von Maschinen, insbesondere von Pressen

Title (fr)

Dispositif de commande synchronisée d'une chaîne de machines, en particulier de presses

Publication

EP 1615090 A1 20060111 (EN)

Application

EP 04380144 A 20040710

Priority

EP 04380144 A 20040710

Abstract (en)

"Synchronized control system of a line of presses or analogous machines with said line of presses comprising a plurality of presses (P1,P2,...,Pn), with each line of presses (P1,P2,...,Pn) comprising a slide (M1,M2,...,Mn) that performs a cyclical movement that can be represented by a cyclogram, and a plurality of piece transfer devices (C1,C2,...,Cn-1) positioned between the presses (P1,P2,...,Pn). For each piece transfer device (Ci) an optimal piece collection path (rori) in relation to cyclogram of the slide (Mi) of the press (Pi) immediately upstream is set in addition to an optimal piece positioning path (roci) in relation to the cyclogram of the slide (Mi+1) of the press (Pi+1) immediately downstream so that synchronisation is achieved by adjusting the path (ri) of each piece transfer device (Ci) to said piece collection path (rori) and to said piece positioning path (roci)."

IPC 8 full level

G05B 19/418 (2006.01); **B21D 43/05** (2006.01)

CPC (source: EP)

G05B 19/41815 (2013.01); **G05B 2219/39105** (2013.01); **G05B 2219/45142** (2013.01); **Y02P 90/02** (2015.11)

Citation (search report)

- [DXA] EP 0434632 A2 19910626 - COMAU SPA [IT]
- [XA] EP 0047056 A2 19820310 - DANLY MACHINE CORP [US]
- [A] US 3948162 A 19760406 - NUMBA MUNEHIRO
- [A] US 3557686 A 19710126 - SAPOLSKY REGER

Cited by

JP2018069336A; CN104903804A; EP2144128A3; US11173680B2; US9864822B2; WO2012055916A1; WO2007141649A1; WO2016146727A1; WO2014063262A1; EP1815972A2; US8423159B2; EP2144128A2; US8096233B2; US9126379B2; EP1815972B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1615090 A1 20060111; EP 1615090 B1 20080220; AT E386965 T1 20080315; DE 602004011916 D1 20080403;
DE 602004011916 T2 20090319; ES 2300729 T3 20080616

DOCDB simple family (application)

EP 04380144 A 20040710; AT 04380144 T 20040710; DE 602004011916 T 20040710; ES 04380144 T 20040710